

## ABSTRACT

A chamber housing (2) enclosing a plasma region (20) in a large area plasma source used for performing plasma assisted processes in large area substrates, the chamber housing (2) being composed of: a housing member (2) constituting a substantially vertically extending wall (4) surrounding a space (6) corresponding to the plasma region (10), the housing member (2) having a plurality of openings (32) and electrically conductive elements forming an electrostatic shield around the space; a plurality of dielectric members (36) each having a peripheral edge and each disposed to close a respective opening (23); and sealing members (40, 40', 42, 42') forming a hermetic seal between said housing member and said peripheral edge of each of said dielectric members (36).

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